

FastTrak Schedule Report

Overview

Store Name: My Store
Depot Name: My Depot
Delivery Date: 09/05/2024
Vehicles: 80
Packages: 4000
Standard Priority: 3197
Express Priority: 803

Schedule Profile

Auto-Minimise (Y/N): N
Optimisation Profile: Eco
Time Window: 8 hours
Estimated Time Per Delivery: 3 minutes

Vehicles

#	Vehicle	Packages	Load Utilisation (kg)	Volume (m³)	Distance (mi)	Time (hrs)
1	VE80ABC	41	581/1000 (58%)	11.0/15.0 (73%)	66.7	5.38
2	VE10ABC	45	721/1000 (72%)	11.8/15.0 (79%)	73.7	5.92
3	VE71ABC	47	617/1000 (62%)	11.1/15.0 (74%)	82.4	6.45
4	VE04ABC	42	617/1000 (62%)	10.7/15.0 (71%)	68.1	5.50
5	VE55ABC	42	695/1000 (70%)	10.7/15.0 (72%)	70.0	5.59
6	VE56ABC	42	773/1000 (77%)	12.2/15.0 (82%)	73.2	5.75
7	VE50ABC	45	647/1000 (65%)	12.3/15.0 (82%)	75.5	6.01
8	VE63ABC	55	845/1000 (85%)	14.9/15.0 (99%)	102.1	7.82
9	VE18ABC	40	514/1000 (51%)	11.3/15.0 (75%)	57.7	4.89
10	VE54ABC	42	616/1000 (62%)	11.7/15.0 (78%)	64.7	5.33
11	VE75ABC	52	855/1000 (86%)	14.9/15.0 (99%)	80.3	6.59
12	VE25ABC	48	695/1000 (70%)	13.1/15.0 (87%)	78.6	6.31
13	VE31ABC	43	655/1000 (66%)	11.2/15.0 (75%)	64.5	5.37
14	VE62ABC	51	868/1000 (87%)	14.0/15.0 (93%)	85.9	6.82
15	VE24ABC	42	597/1000 (60%)	11.3/15.0 (75%)	59.6	5.08
16	VE74ABC	46	808/1000 (81%)	13.6/15.0 (91%)	75.0	6.04
17	VE58ABC	39	611/1000 (61%)	10.7/15.0 (71%)	53.1	4.61

18	VE26ABC	43	647/1000 (65%)	13.1/15.0 (87%)	66.8	5.48
19	VE64ABC	44	788/1000 (79%)	10.9/15.0 (73%)	67.5	5.57
20	VE59ABC	46	753/1000 (75%)	12.2/15.0 (81%)	73.6	5.97
21	VE44ABC	47	730/1000 (73%)	13.2/15.0 (88%)	73.7	6.02
22	VE78ABC	49	727/1000 (73%)	12.1/15.0 (80%)	90.0	6.92
23	VE35ABC	44	693/1000 (69%)	13.1/15.0 (87%)	67.6	5.57
24	VE51ABC	49	695/1000 (70%)	11.2/15.0 (74%)	68.7	5.88
25	VE76ABC	49	680/1000 (68%)	12.8/15.0 (86%)	71.2	6.00
26	VE72ABC	50	738/1000 (74%)	14.5/15.0 (97%)	77.2	6.34
27	VE21ABC	55	995/1000 (100%)	15.0/15.0 (100%)	91.3	7.28
28	VE61ABC	53	820/1000 (82%)	14.4/15.0 (96%)	82.8	6.77
29	VE42ABC	51	807/1000 (81%)	15.0/15.0 (100%)	61.1	5.60
30	VE40ABC	48	806/1000 (81%)	13.6/15.0 (91%)	72.7	6.02
31	VE20ABC	54	929/1000 (93%)	14.9/15.0 (100%)	86.9	7.02
32	VE43ABC	50	863/1000 (86%)	14.9/15.0 (100%)	78.5	6.41
33	VE06ABC	47	812/1000 (81%)	13.3/15.0 (89%)	68.5	5.77
34	VE36ABC	51	747/1000 (75%)	14.9/15.0 (99%)	75.9	6.33
35	VE19ABC	51	763/1000 (76%)	15.0/15.0 (100%)	76.3	6.35
36	VE32ABC	54	887/1000 (89%)	14.9/15.0 (100%)	83.9	6.87
37	VE68ABC	50	722/1000 (72%)	12.6/15.0 (84%)	68.8	5.93
38	VE60ABC	54	831/1000 (83%)	14.8/15.0 (99%)	81.8	6.77
39	VE79ABC	44	684/1000 (68%)	12.3/15.0 (82%)	61.1	5.25
40	VE28ABC	51	730/1000 (73%)	15.0/15.0 (100%)	73.1	6.19
41	VE03ABC	53	910/1000 (91%)	14.9/15.0 (100%)	81.3	6.69
42	VE73ABC	49	813/1000 (81%)	12.6/15.0 (84%)	68.7	5.88
43	VE33ABC	48	733/1000 (73%)	14.9/15.0 (100%)	62.4	5.52
44	VE70ABC	46	662/1000 (66%)	13.2/15.0 (88%)	58.3	5.22
45	VE29ABC	53	814/1000 (81%)	15.0/15.0 (100%)	75.4	6.41
46	VE34ABC	57	858/1000 (86%)	14.9/15.0 (99%)	81.1	6.89
47	VE77ABC	54	958/1000 (96%)	13.6/15.0 (91%)	77.2	6.54
48	VE16ABC	49	846/1000 (85%)	14.5/15.0 (97%)	68.4	5.86
49	VE57ABC	61	863/1000 (86%)	14.9/15.0 (100%)	86.4	7.35
50	VE65ABC	46	679/1000 (68%)	13.0/15.0 (87%)	56.2	5.11

51	VE46ABC	52	826/1000 (83%)	14.3/15.0 (95%)	70.0	6.09
52	VE49ABC	47	659/1000 (66%)	14.9/15.0 (99%)	58.5	5.27
53	VE07ABC	55	913/1000 (91%)	14.2/15.0 (95%)	75.3	6.50
54	VE67ABC	58	961/1000 (96%)	14.9/15.0 (100%)	74.4	6.60
55	VE37ABC	52	912/1000 (91%)	14.7/15.0 (98%)	71.2	6.15
56	VE66ABC	51	718/1000 (72%)	15.0/15.0 (100%)	63.9	5.74
57	VE41ABC	54	772/1000 (77%)	15.0/15.0 (100%)	69.0	6.14
58	VE02ABC	58	826/1000 (83%)	14.5/15.0 (97%)	74.1	6.59
59	VE08ABC	47	771/1000 (77%)	15.0/15.0 (100%)	59.0	5.30
60	VE01ABC	57	969/1000 (97%)	15.0/15.0 (100%)	77.2	6.69
61	VE14ABC	52	866/1000 (87%)	13.0/15.0 (86%)	64.7	5.83
62	VE45ABC	52	810/1000 (81%)	13.7/15.0 (92%)	63.9	5.79
63	VE48ABC	57	967/1000 (97%)	14.9/15.0 (100%)	76.1	6.64
64	VE22ABC	50	869/1000 (87%)	13.3/15.0 (89%)	60.8	5.54
65	VE11ABC	47	742/1500 (49%)	11.9/15.0 (79%)	38.5	4.29
66	VE17ABC	52	852/1000 (85%)	13.6/15.0 (91%)	62.0	5.70
67	VE39ABC	58	884/1000 (88%)	14.3/15.0 (95%)	80.5	6.91
68	VE47ABC	54	967/1000 (97%)	14.9/15.0 (100%)	68.7	6.12
69	VE15ABC	53	963/1000 (96%)	15.0/15.0 (100%)	66.2	5.95
70	VE52ABC	53	889/1000 (89%)	14.9/15.0 (99%)	62.5	5.77
71	VE38ABC	54	752/1000 (75%)	14.9/15.0 (100%)	58.9	5.65
72	VE13ABC	53	784/1000 (78%)	15.0/15.0 (100%)	56.3	5.47
73	VE05ABC	52	760/1000 (76%)	14.9/15.0 (100%)	53.0	5.25
74	VE30ABC	45	704/1000 (70%)	13.8/15.0 (92%)	42.5	4.39
75	VE27ABC	48	725/1000 (73%)	15.0/15.0 (100%)	47.3	4.78
76	VE09ABC	56	979/1000 (98%)	15.0/15.0 (100%)	60.6	5.83
77	VE69ABC	50	788/1000 (79%)	15.0/15.0 (100%)	48.9	4.95
78	VE53ABC	56	864/1000 (86%)	14.9/15.0 (100%)	64.9	6.04
79	VE12ABC	58	898/1000 (90%)	15.0/15.0 (100%)	53.0	5.56
80	VE23ABC	57	960/1000 (96%)	15.0/15.0 (100%)	48.8	5.30

Performance

Total	Average Per Vehicle	Average Per Package
Packages: 4000	Packages: 50.00	Packages: n/a
Driving Time: 476.05 hours	Driving Time: 5.95 hours	Driving Time: 0.12 hours
Distance: 5536.25 miles	Distance: 69.20 miles	Distance: 1.38 miles
Weight: 63048.00 kg	Weight: 788.10 kg	Weight: 15.76 kg
Volume: 1097.59 m³	Volume: 13.72 m³	Volume: 0.27 m³

Efficiency Metrics

Higher efficiency scores indicate better performance. A utilisation score of 100 indicates that the vehicle is being used to its full capacity.

Time Efficiency (TE) = Number of Packages / Time (minutes) * 100
Distance Efficiency (DE) = Number of Packages / Distance (miles) * 100
Weight Utilisation (WU) = Total Weight (kg) / Load Capacity (kg) * 100
Volume Utilisation (VU) = Total Volume (m³) / Volume Capacity (m³) * 100

#	Vehicle	TE	DE	WU	VU
1	VE80ABC	12.71	61.50	58.10	73.44
2	VE10ABC	12.67	61.08	72.10	78.92
3	VE71ABC	12.15	57.03	61.70	73.71
4	VE04ABC	12.73	61.66	61.70	71.46
5	VE55ABC	12.52	59.97	69.50	71.50
6	VE56ABC	12.18	57.39	77.30	81.65
7	VE50ABC	12.48	59.64	64.70	81.97
8	VE63ABC	11.73	53.88	84.50	99.32
9	VE18ABC	13.64	69.29	51.40	75.42
10	VE54ABC	13.14	64.95	61.60	77.89
11	VE75ABC	13.14	64.79	85.50	99.50
12	VE25ABC	12.68	61.10	69.50	87.45
13	VE31ABC	13.35	66.66	65.50	74.91
14	VE62ABC	12.46	59.36	86.80	93.24
15	VE24ABC	13.78	70.42	59.70	75.22
16	VE74ABC	12.70	61.29	80.80	90.77
17	VE58ABC	14.10	73.39	61.10	71.24
18	VE26ABC	13.07	64.36	64.70	87.06
19	VE64ABC	13.17	65.14	78.80	72.71
20	VE59ABC	12.85	62.52	75.30	81.32

21	VE44ABC	13.00	63.74	73.00	88.33
22	VE78ABC	11.79	54.42	72.70	80.39
23	VE35ABC	13.16	65.09	69.30	87.31
24	VE51ABC	13.89	71.28	69.50	74.49
25	VE76ABC	13.61	68.82	68.00	85.58
26	VE72ABC	13.14	64.76	73.80	96.75
27	VE21ABC	12.58	60.26	99.50	99.91
28	VE61ABC	13.05	64.05	82.00	96.30
29	VE42ABC	15.18	83.52	80.70	99.69
30	VE40ABC	13.29	66.04	80.60	90.96
31	VE20ABC	12.82	62.16	92.90	99.65
32	VE43ABC	13.01	63.73	86.30	99.51
33	VE06ABC	13.58	68.56	81.20	88.79
34	VE36ABC	13.42	67.16	74.70	99.07
35	VE19ABC	13.39	66.84	76.30	99.74
36	VE32ABC	13.10	64.39	88.70	99.61
37	VE68ABC	14.05	72.62	72.20	83.91
38	VE60ABC	13.30	66.04	83.10	98.79
39	VE79ABC	13.97	72.06	68.40	82.29
40	VE28ABC	13.72	69.73	73.00	99.74
41	VE03ABC	13.19	65.20	91.00	99.65
42	VE73ABC	13.90	71.31	81.30	83.97
43	VE33ABC	14.50	76.91	73.30	99.52
44	VE70ABC	14.70	78.90	66.20	88.12
45	VE29ABC	13.79	70.25	81.40	99.89
46	VE34ABC	13.80	70.28	85.80	99.09
47	VE77ABC	13.75	69.95	95.80	90.61
48	VE16ABC	13.93	71.65	84.60	96.59
49	VE57ABC	13.84	70.61	86.30	99.53
50	VE65ABC	14.99	81.81	67.90	86.87
51	VE46ABC	14.23	74.29	82.60	95.31
52	VE49ABC	14.85	80.36	65.90	99.27
53	VE07ABC	14.10	73.00	91.30	94.93

54	VE67ABC	14.64	77.98	96.10	99.55
55	VE37ABC	14.09	73.01	91.20	98.12
56	VE66ABC	14.81	79.80	71.80	99.89
57	VE41ABC	14.65	78.23	77.20	99.71
58	VE02ABC	14.67	78.28	82.60	96.51
59	VE08ABC	14.79	79.72	77.10	99.82
60	VE01ABC	14.19	73.82	96.90	99.94
61	VE14ABC	14.87	80.43	86.60	86.39
62	VE45ABC	14.97	81.42	81.00	91.61
63	VE48ABC	14.31	74.92	96.70	99.59
64	VE22ABC	15.04	82.18	86.90	88.85
65	VE11ABC	18.26	122.14	49.47	79.49
66	VE17ABC	15.21	83.82	85.20	90.69
67	VE39ABC	13.99	72.02	88.40	95.25
68	VE47ABC	14.69	78.64	96.70	99.55
69	VE15ABC	14.83	80.01	96.30	99.87
70	VE52ABC	15.31	84.87	88.90	99.38
71	VE38ABC	15.94	91.62	75.20	99.60
72	VE13ABC	16.15	94.09	78.40	99.95
73	VE05ABC	16.49	98.09	76.00	99.60
74	VE30ABC	17.10	105.96	70.40	92.13
75	VE27ABC	16.75	101.42	72.50	99.68
76	VE09ABC	16.02	92.47	97.90	99.96
77	VE69ABC	16.83	102.33	78.80	99.91
78	VE53ABC	15.46	86.31	86.40	99.53
79	VE12ABC	17.40	109.35	89.80	99.95
80	VE23ABC	17.94	116.88	96.00	99.92
Average		14.00	72.25	78.32	91.47

Algorithm Information

The algorithm configuration has been selected as:

Initialisation: KMeans

Optimisation: Genetic Algorithm

Generations: 1500000

Network State

Vehicles available: 80

Vehicles used: 80

Packages pending: 4000

Packages scheduled: 4000

Total Time Window: 640 hours

Solution Statistics

Initialisation	Optimisation	Packages	Time (hours)	Distance (miles)	TE	DE	WU	VU
KMeans	Genetic Algorithm	4000	476.05	5536.24	14.00	72.25	78.32	91.47